First Named Inventor: Gregory Murphy Appl. Ser. No.: 10/768,403

Atty. Dkt.: 5838-03103

## Amendments to the Claims

Please cancel claims 240-249 and 251 without prejudice.

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of Claims

1-249 (Cancelled)

250. (Currently amended): A method of assessing a viability of human heart tissue, comprising: providing one-two or more images of heart tissue from a human heart to a computer system;

dividing at least one two of the images into a plurality of sections, comprising:

creating endocardial and epicardial left ventricle wall boundaries;

automatically segmenting at least a portion of left ventricle wall endocardial

boundaries of at least two of the provided images of heart tissue into a selected number of endocardial left ventricle wall points;

automatically segmenting at least a portion of left ventricle wall epicardial boundaries of at least two of the provided images of heart tissue into a selected number of epicardial left ventricle wall points; and

automatically using endocardial left ventricle wall points and epicardial left ventricle wall points to create a model of at least a portion of the left ventricle wall over one or more periods of time;

assigning a value to at least one of the sections of the model, wherein the value is a function of a feature of the section; and

using the value of at least one of the sections to assess viability of human heart tissue in or proximate to at least one of the sections with an assigned value.

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251. (Cancelled)

252. (Original): The method of claim 250, wherein the feature of the section is a color of the

section.

253. (Original): The method of claim 252, wherein the color of the section comprises grayscale.

254. (Previously presented): The method of claim 250, wherein the computer system divides at

least one of the images into a plurality of images.

255. (Original): The method of claim 250, wherein the computer system assigns the value to at

least one of the sections.

256. (Previously presented): The method of claim 250, further comprising extrapolating at least

one feature from at least one of the image.

257. (Previously presented): The method of claim 250, wherein the computer system uses the

value assigned to at least one of the sections to assess viability of human heart tissue in or

proximate to at least one of the sections with an assigned value.

258. (Previously presented): The method of claim 250, further comprising creating at least a

second image of human heart tissue, wherein at least a portion of the second image appears at

least three-dimensional.

259. (Previously presented): The method of claim 250, further comprising creating at least a

second image of human heart tissue, wherein at least a portion of the second image appears at

least three-dimensional with different viabilities indicated on the image.

260. (Previously presented): The method of claim 259, further comprising displaying the three-

dimensional image.

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261. (Previously presented): The method of claim 250, further comprising creating a report comprising an image of human heart tissue appearing at least thee-dimensional, wherein the image is divided into sections based on the assessed viability of the sections.

262. (Cancelled)

263. (Currently amended): A system configured to assess a viability of human heart tissue, comprising:

a CPU; and

a system memory coupled to the CPU, wherein the system memory stores one or more computer programs executable by the CPU;

wherein one or more computer programs are executable to:

provide at least <u>one-two images</u> of heart tissue from a human heart to a computer system; <u>create endocardial and epicardial left ventricle wall boundaries</u>;

automatically segment at least a portion of left ventricle wall endocardial boundaries of at least two of the provided images of heart tissue into a selected number of endocardial left ventricle wall points;

automatically segment at least a portion of left ventricle wall epicardial boundaries of at least two of the provided images of heart tissue into a selected number of epicardial left ventricle wall points;

automatically use endocardial left ventricle wall points and epicardial left ventricle wall points to create a model of at least a portion of the left ventricle wall over one or more periods of time; and

assess viability of human heart tissue by using the computer system to assess a contrast between at least two sections in at least one imagethe model.

264-494 (Cancelled)